

Notice of Allowability

Application No.

09/752,227

Examiner

Callie E. Shosho

Applicant(s)

JOHNSON ET AL

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to response and terminal disclaimer filed 1/6/06.
2. ☒ The allowed claim(s) is/are 57-67, 70-72, 80, 82 and 84-86.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

(1) In the specification, page 2, first paragraph after the "Title" and before the "Background of the Invention" Section, after "April 2,1999" and before ",", insert "now U.S. Patent No. 6,336,965".

Statement of Reasons for Allowance

2. In the office action mailed 10/6/05, claims 57, 59-62, 65-67, 80, 82, and 84-85 were rejected under the judicially created doctrine of obviousness-type double patenting, claims 58, 63-64, and 70-72 were objected to as being dependent upon a rejected base claim, and claim 86 was allowed.

In response, applicants filed a terminal disclaimer on 1/6/06. The filing of the proper terminal disclaimer on 1/6/06 overcomes the double patenting rejection of record.

Thus, present claims 57-67, 70-72, 80, 82, and 84-86 are allowable over the “closest” prior art Cooke et al. (U.S. 6,110,994), Hall et al. (U.S. 5,552,458), and Whitehouse et al. (U.S. 6,337,358) for the following reasons:

Cooke et al. disclose modified pigment comprising pigment having attached group of the formula $\text{Ar-CO}_2\text{-R}$ where Ar is aromatic group corresponding to presently claimed X and R is polymer such as polyamide or polyester. However, there is no disclosure or suggestion that the polymer is polycarbonate, polyether, polyimide, polyurethane, or polyvinyl alcohol as required in each of present claims 57, 65, and 80. Further, there is no disclosure or suggestion in Cooke et al. that the polymer comprises at least one -X' group that is the same as X and thus, there is also no disclosure that the X' group is attached to the pigment as required in present claim 86. Additionally, there is no disclosure of ink comprising the modified pigment as required in present claims 65, 80, and 86.

Art Unit: 1714

Hall et al. disclose modified pigment having attached group of the formula $\begin{matrix} R^1 \\ | \\ R^2-Si-A-X \\ | \\ R^3 \end{matrix}$ wherein $R^1 - R^3$ are each C_1-C_{10} alkyl, alkoxy, alkoxyalkoxy, alkanoyloxy, or halogen group with the proviso that R^1 , R^2 , and R^3 may not all be alkyl, A is divalent radical, and X is attached to polymeric backbone and wherein X is then reacted with reactive functionality on a polymer backbone so that the modified pigment comprises pigment with attached group that is substituted with polymer. The polymer includes polyurethane and polyester. However, the above attached group is attached to the pigment through $-Si-O-M$ bonds where M represents surface metal on the pigment material such as aluminum, gold, copper, silver, etc. There is no disclosure or suggestion that the pigment has directly attached aromatic or alkyl group that is substituted with polymer as required in each of present claims 57, 65, and 80. Rather, the attachment in Hall et al. is through $-Si-O-M$ bond not aromatic or alkyl group as presently claimed. Further, there is no disclosure or suggestion in Hall et al. that the polymer comprises at least one $-X'$ group that is the same as X and thus, there is also no disclosure that the X' group is attached to the pigment as required in present claim 86. Additionally, there is no disclosure of ink comprising the modified pigment as required in present claims 65, 80, and 86.

Whitehouse et al. disclose modified pigment comprising pigment having attached group of the formula $\begin{matrix} R^2 \\ | \\ A-R^1-C-X-SFR \\ | \\ R^3 \end{matrix}$ where A is an aromatic or alkyl group corresponding to X as presently claimed, X is polymer, and SFR is $O-Ar^2$ where Ar is aromatic group. There is also disclosed ink jet ink comprising the modified pigment. However, the polymer of Whitehouse et al. is obtained from diene or vinyl polymer which is in direct contrast to each of present claims 57, 65, and 80 which each require that the polymer is polycarbonate, polyether, polyimide, polyurethane, or polyvinyl alcohol. Further, while the polymer of Whitehouse et al. includes

those obtained from monomer such as alkyl (meth)acrylate which corresponds to polymer having X' group as presently claimed, there is no disclosure or suggestion in Whitehouse et al. that X' is attached to the pigment as required in present claim 86.

Thus, Cooke et al., Hall et al., and Whitehouse et al., either alone or in combination, do not disclose the present invention.

In light of the above, the present claims are passed to issue.

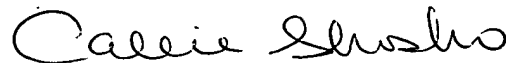
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1714

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
1/18/06